

### Abstract

The honeycomb structure of the present invention has a construction wherein a plurality of cells 5 each functioning as a passage of a fluid, surrounded by porous partition walls 6 are arranged so as to be parallel to each other in the central axis direction of the honeycomb structure, and has such a constitution that a plurality of honeycomb segments 2 are bonded integrally by a bonding material 9 containing a ceramic as a main component and a particulate filler. In the honeycomb structure, generation of drawbacks such as peeling of bonded area, cracking and the like is suppressed reliably, and the honeycomb structure is superior in durability.